

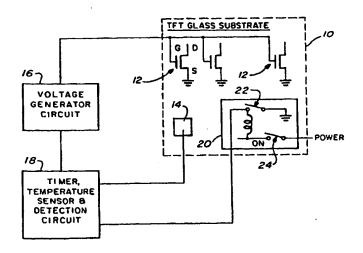
## WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>5</sup> : G09G 3/36	A1	<ul> <li>(11) International Publication Number: WO 94/25954</li> <li>(43) International Publication Date: 10 November 1994 (10.11.94)</li> </ul>
(21) International Application Number: PCT/GBs (22) International Filing Date: 10 March 1994 (20) (30) Priority Data: 055,688 30 April 1993 (30.04.93)	10.03.9	CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU
<ul> <li>(71) Applicant: PRIME VIEW HK LIMITED [GB/GB]; Su Chinachem Golden Plaza, 77 Mody Road, Tsimsha Kowloon (HK).</li> <li>(72) Inventors: LEE, Sywe, Neng; 111 5 F1. Wen De Ro Hu, Taipei (TW). HY, Dyi-Chung; 4F, 153-1, S Village, Pausang County, Shinchu Shein (TW).</li> <li>(74) Agent: BRUNNER, Michael, John; Gill Jennings of the State of the State</li></ul>	tsui Eas oad, Ne hung-S	i- hi
Broadgate House, 7 Eldon Street, London EC2M 7	LH (GB	

54) Title: APPARATUS FOR RECOVERY OF THRESHOLD VOLTAGE SHIFT IN AMORPHOUS SILICON THIN-FILM TRAN-SISTOR DEVICE



## (57) Abstract

An apparatus is provided for recovery of a threshold voltage,  $V_{th}$ , of thin-film amorphous silicon transistors (12) deposited on a substrate (10) and a gate voltage is applied to each of the transistors (12) during use, causing  $V_{th}$  to shift with time. The apparatus detect when the LCD display (10) is not being used, generates a voltage  $V_g$ , of opposite polarity with respect to  $V_g$  when the LCD display is not being used, and applies  $V_g$  to the gates of the transistors (12) of the LCD display (10) for causing  $V_{th}$  to shift in a direction opposite to that caused by  $V_g$ , thereby maintaining an effective driving voltage for the transistor (12) of the LCD display (10).

## FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AT	Austria	GB	United Kingdom	MOR	Marritania
ΑŪ	Australia	GB	Georgia	MW	Malawi
BB	Barbados	GN	Guinea	NE	Niger
BE	Belgium	GR	Greece	NL	Netherlands
BF	Burkina Faso	HU	Hungary	NO	Norway
BG	Bulgaria	Œ	Ireland	NZ	New Zealand
BJ	Benin	rr	Italy	PL	Poland
BR	Brazil	JР	Japan	PT	Portugal
BY	Belarus	KE	Konya	RO	Romania
CA	Canada	KG	Kyrgystan	RU	Russian Federation
CF	Central African Republic	KP	Democratic People's Republic	SD	Sudan
CG	Congo		of Korea	SE	Sweden
CH	Switzerland	KR	Republic of Korea	SI	Slovenia
CI	Côte d'Ivoire	KZ	Kazakhstan	SK	Slovakia
CM	Cameroon	u	Liechtenstein	SN	Senegal
CN	China	LK	Sri Lanka	TD	Chad
CS	Czechoslovakia	LU	Luxembourg	TG	Togo
CZ	Czech Republic	LV	Latvia	TJ	Tajikistan
DE	Germany	MC	Monaco	TT	Trinidad and Tobago
DK	Denmark	MD	Republic of Moldova	UA	Ukraine
ES	Spain	MG	Madagascar	US	United States of America
FI	Finland	MIL.	Mali	UZ	Uzbekistan
FR	France	MIN	Mongolia	VN	Viet Nam
GA	Gebon		-		